



# Montana Fish, Wildlife & Parks

August 30, 2000

1420 East 6th Ave.  
P.O. Box 200701  
Helena, MT 59620-0701

Environmental Quality Council  
Montana Department of Environmental Quality  
Montana Department of Fish, Wildlife and Parks  
    Fisheries Division  
    Endangered Species Coordinator  
    Nongame Coordinator  
    Native Species Coordinator, Fisheries  
    Missoula Office  
Montana State Library, Helena  
MT Environmental Information Center  
Montana Audubon Council  
Missoula County Conservation District, 5115 Highway 93 South, Missoula, MT 59801  
U.S. Army Corp of Engineers, Helena  
U.S. Fish and Wildlife Service, Helena  
State Historic Preservation Office, Helena  
Ms. Kathy Knudsen, 10905 Butler Creek Road, Missoula, MT 59808  
Ms. Mary Birch, 10300 Butler Creek Road, Missoula, MT 59808  
Jim and Cassandra Toth, 10260 Butler Creek Road, Missoula, MT 59808

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for a Future Fisheries Project tentatively planned to remove three fish migration barriers on upper Butler Creek. This proposed project is located on property owned by three individual landowners - Kathy Knudsen, Mary Birch, and Jim and Cassandra Toth - near the city of Missoula in Missoula County.

Please submit any comments that you have by 5:00 P.M., September 30, 2000 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432.

Sincerely,

Mark Lere, Program Officer  
Habitat Protection Bureau  
Fisheries Division

ENVIRONMENTAL ASSESSMENT  
Fisheries Division  
Montana Fish, Wildlife and Parks  
Butler Creek Fish Barrier Removal Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 which directs the Department to administer a Future Fisheries Improvement Program. The program involves physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. The program calls for the enhancement of bull trout and cutthroat trout through habitat restoration, natural reproduction and reductions in species competition by way of the Future Fisheries Program. This project is being proposed to remove three individual man-made structures (a rock sill, an undersized culvert and an old abandoned irrigation structure) located over a 1 mile reach of upper Butler Creek. All three structures act as fish migration barriers. The intent of this project is to re-connect 1 mile of habitat on private property with 3.5 miles of habitat located upstream on USFS lands. This 4.5 mile reach of Butler Creek supports an isolated, genetically pure, resident population of westslope cutthroat trout. The project site is located on property owned by three individual landowners - Kathy Knudsen, Mary Birch and Jim and Cassandra Toth - near the city of Missoula in Missoula County (Attachment 1).

I. Location of Project: This project will be conducted on Butler Creek located approximately 6 miles north of the town of Missoula within Township 14 North, Range 19 West, Sections 17 and 18 in Missoula County.

II. Need for the Project: Department Goal C indicates that a Fisheries Division objective is to "provide and support programs to conserve and enhance high quality aquatic habitat and protect native aquatic species." The Future Fisheries Improvement Program is a tool to help achieve that objective.

Upper Butler Creek supports an isolated, genetically pure, resident population of westslope cutthroat trout. Three man-made structures spread over a 1 mile reach at the upstream boundary of private ownership currently act as fish passage barriers. These barriers fragment the habitat available to this resident westslope cutthroat trout population. The intent of the project is to expand habitat connectivity to about 5 miles in upper Butler Creek, thereby increasing the chances of long term persistence for this isolated population of westslope cutthroat trout. The reach containing genetically pure cutthroat trout would continue to remain isolated from the Clark Fork River, however, due to dewatering in the lower reaches of Butler Creek.

III. Scope of the Project:

The project proposes to remove three man-made structures acting as fish migration barriers located over a 1 mile reach of upper Butler Creek. The first project involves the removal of a rock sill that creates a 3 foot drop. Once the sill is removed, a series of 2 to 3 vortex rock weirs would be installed to prevent head-cutting. The second project involves replacing an under-sized and perched culvert with a larger and appropriately sized arch pipe that would be buried into the substrate to provide for a natural stream bottom. The third project involves the removal of an old, abandoned irrigation structure and a couple of associated grade controls that create 2.5 to 3 foot drops. The structure also creates channel instability due to upstream deposition. This project calls for removing the irrigation structure and grade controls. The project also calls for re-constructing a 50 foot reach of channel. The new channel would be constructed as single thread channel and, as with the removal of the rock sill, a series of 2 or 3 vortex rock weirs would be installed to provide for grade control. This project is expected to cost \$6,880.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$6,400.00.

#### IV. Environmental Impact Checklist:

Please see attached checklist.

#### V. Explanation of Impacts to the Physical Environment

##### 1. Terrestrial and aquatic life and habitats.

The removal of three fish migration barriers will help conserve a genetically pure population of westslope cutthroat trout by expanding the quantity of connected habitat that can be occupied. An increase in the amount of connected habitat should increase the chances of long term persistence for this isolated cutthroat trout population.

##### 2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. To minimize turbidity, construction will occur during a low flow period and operation of equipment in the stream channel will be minimized to the extent practicable. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota. A 124 permit (Stream Protection Act) will be obtained from Montana Fish, Wildlife and Parks.

##### 3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed during barrier removal and channel construction, but would quickly stabilize following proposed re-vegetation efforts. Overall, the project is expected to reduce bank erosion and improve channel stability by removing a series of man-made obstructions in the stream channel.

##### 4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be disturbed during the period of construction. However, proposed re-vegetation efforts would act to mitigate these disturbances.

5. Aesthetics.

Aesthetics would be enhanced by removing two man-made structures from the stream channel.

7. Unique, endangered, fragile, or limited environmental resources.

Upper Butler Creek supports an isolated, genetically pure population of resident westslope cutthroat trout. The west-slope cutthroat trout has been designated as a species of special concern in Montana because of a continual and significant decline in natural populations. This project is intended to help conserve this population of westslope cutthroat trout by re-connecting fragmented habitat.

9. Historic and archaeological sites

The proposed project likely will require an individual Army Corp of Engineers 404 permit. Therefore, the State Historic Preservation Office has been contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

The intent of the project is to help conserve an isolated, genetically pure population of westslope cutthroat trout. Butler Creek receives limited fishing pressure, primarily from residents of the drainage and some residents from Missoula.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, the threat of extinction for an isolated population of westslope cutthroat trout remains relatively high due to continued fragmentation of habitat caused by the three fish migration barriers.

2. The Proposed Alternative

The proposed alternative is designed to remove three man-made fish barriers that currently fragment the habitat available to an isolated population of westslope cutthroat trout. Removal of these barriers would help conserve this cutthroat trout population by expanding the amount of connected habitat that can be occupied.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA will be published on the Montana Electronic Bulletin Board.

3. Duration of comment period?

Public comment will be accepted through 5:00 PM on September 30, 2000.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer  
Habitat Protection Bureau  
Fisheries Division  
Montana Department of Fish, Wildlife and Parks  
1420 East 6th Avenue  
Helena, MT 59620

Telephone: (406) 444-2432

**MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS**  
 1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701  
 (406) 444-2535

**ENVIRONMENTAL ASSESSMENT**

Project Title Butler Creek Fish Barrier Removal Project

Division/Bureau Fisheries Division -Future Fisheries Improvement

Description of Project The project is being proposed to remove three man-made barriers to fish migration to help conserve an isolated, resident population of westslope cutthroat trout in upper Butler Creek. The project site is located on property owned by three individual landowners - Kathy Knudsen, Mary Birch and Jim and Cassandra Toth - near the city of Missoula in Missoula County.

**POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT**

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources			X			X
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

# POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

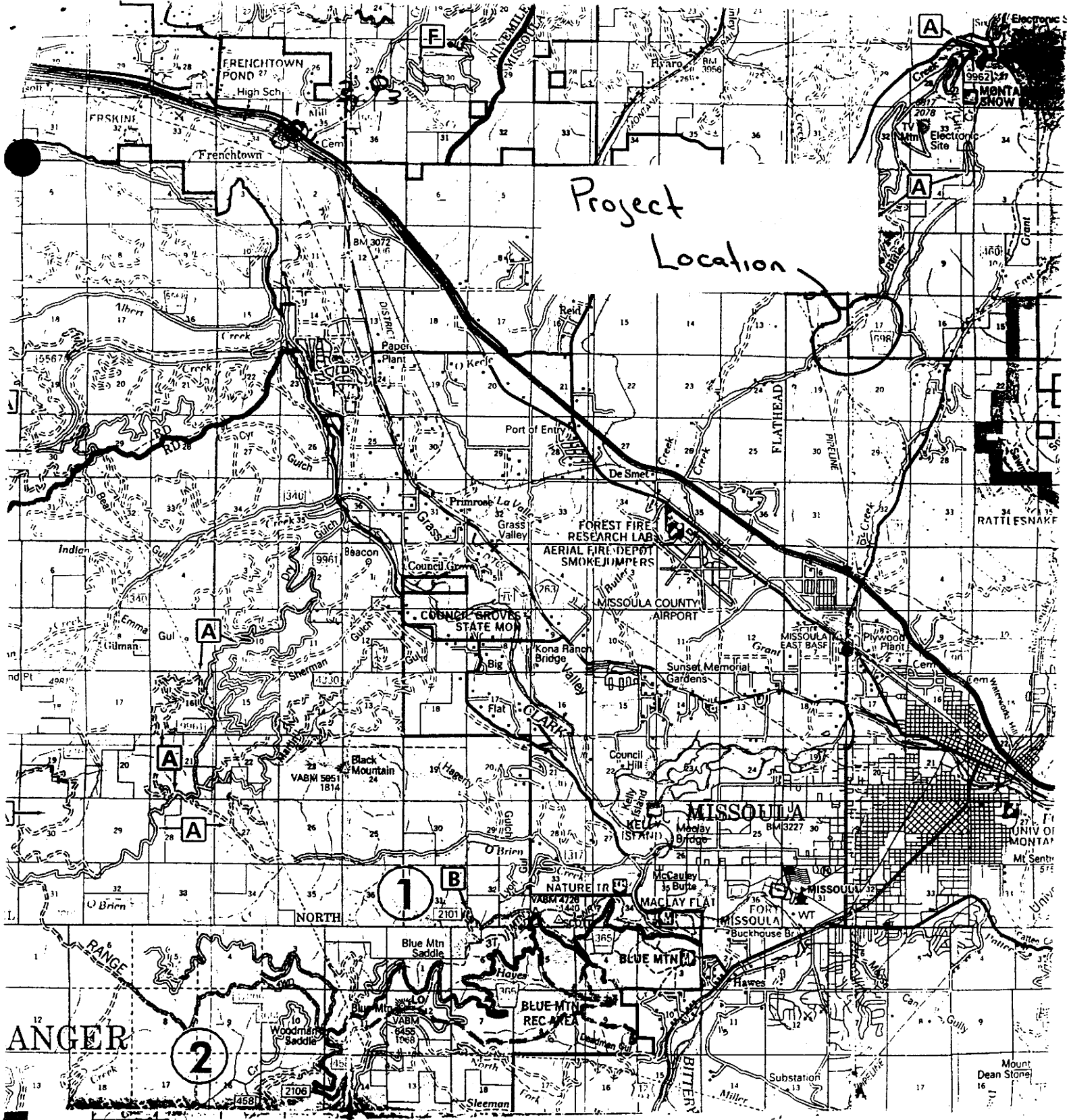
Other groups or agencies contacted or which may have overlapping jurisdiction Missoula County Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office  
Individuals or groups contributing to this EA Ladd Knotek, Montana Fish, Wildlife and Parks

Recommendation concerning preparation of EIS No EIS required.

EA prepared by: Mark Lere

Date: August 30, 2000





Attachment 1. Map of Butler Creek showing location of proposed project.